

REMARKS

Reconsideration of this application as amended is requested. By this amendment Applicants have amended the Abstract to be less than 150 words and are submitting a formal drawing as Attachment 1, as requested by the Examiner in the first two paragraphs of the Office Action. Applicants also have amended claims 1, 7, 12 and 13 to correct informalities noted by the Examiner in paragraph 3. Claims 1-25 remain in the case.

The Examiner objected to "UI" in claim 1, requesting that the term be defined in the claim. Claim 1 has been amended to recite ". . . UI (one UI equals one clock period) . . ." Applicants also amended claim 7 to recite "a last state", as suggested by the Examiner. Further Applicants also amended claim 12 to recite that the converting step produces ". . . an RZ serial data stream, the RZ serial data stream being the serial data stream . . ." to clarify the intention, as requested by the Examiner. Finally Applicants have amended claim 13 to recite that the combining means converts ". . . the NRZ serial data stream to the RZ serial data stream." Thus the Examiner's objections to claims 1-22 are deemed to be moot.

The Examiner rejected claims 1-3, 17-19 and 23-25 under 35 U.S.C. 102(b) as being anticipated by Iijima; rejected claim 11 under 35 U.S.C. 103(a) as being unpatentable over Iijima; rejected claim 21 under 35 U.S.C. 103(a) as being unpatentable over Iijima in view of Davis; and objected to claims 4-10, 12-16 and 22 as well as multiple dependent claims 11, 17-21 and 23-25 when depending from claims 4-10 as being dependent upon a rejected base claim. Applicants respectfully traverse the Examiner's rejection of claims 1-3, 11, 17-19, 21 and 23-25.

In contradistinction to Applicants' claimed invention Iijima discloses a jitter measurement method that detects serial digital signal frequency deviations of a predetermined frequency (f_m) corresponding to a predetermined period (T_m) other than a clock period (T_r) within a serial digital signal, i.e., T_r (serial digital signal recovered clock period) $\neq T_m$ (predetermined period = $k \cdot T_r$), which frequency deviations are converted to period deviations of the predetermined period, i.e., seconds of jitter are measured for the predetermined period, not for the serial digital signal as a whole. Further since Iijima does not base the jitter measurement on the clock period (UI), but upon different predetermined periods, it is not clear that the jitter UI for the input serial digital signal is the same UI for the predetermined period of the lower rate serial digital signal. Applicants have amended claim 1 to make it clearer that the present invention jitter measurement maintains jitter UI rather than providing jitter time as in Iijima. Therefore claim 1 and claims 2-25 dependent therefrom are deemed to be allowable as being neither anticipated nor rendered obvious to one of ordinary skill in the art by Iijima, either alone or in view of Davis.

Claim 2 further recites recovering a low rate clock signal from the low rate serial stream, and then measuring the jitter from the low rate clock. Iijima does not recover a low rate clock signal from the low rate serial stream output from the bandpass filter 240, but merely mixes the low rate serial stream with quadrature versions of a detected frequency recovered from the high rate serial stream. Iijima measures jitter from the quadrature mixed outputs of mixers 400, 410, not from a low rate clock signal.

With regards to claim 11 the Examiner assumes that, because it is well known in the art to digitize a signal to enable digital processing, it would have been obvious

to digitize the serial data stream and process it digitally to measure jitter. However there is no teaching or suggestion in Iijima that such digitization is desirable, and Applicants submit that the Examiner needs another reference to support such position.

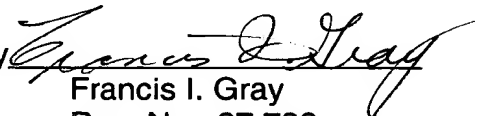
With regards to claim 21 Davis teaches using anti-aliasing filters after the modulating stage 66, 68 rather than "for input to the down converting means" as recited by Applicants. Therefore the filters of Davis are equivalent to the bandpass filter already shown in Iijima, and thus the combination of the two references does not produce the invention as recited by Applicants.

In view of the foregoing amendment and remarks allowance of claims 1-25 is urged, and such action and the issuance of this case are requested.

Respectfully submitted,

JEFFREY A. KLECK et al

By



Francis I. Gray
Reg. No. 27,788
Patent Agent for

Applicant
TEKTRONIX, INC.
P.O. Box 500 (50-LAW)
Beaverton, OR 97077
(503) 627-7261

7175 US